

Appln. No.: 10/656,392
Amendment Dated November 21, 2006
Reply to Office Action of August 30, 2006

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Remarks/Arguments:

Claim 1 has been amended. No new matter is introduced herein. Claims 16 and 17 have been canceled. Claims 1-15 are pending. Claims 9 - 15 have been withdrawn.

Applicants acknowledge with appreciation the courtesy shown to their representative by Examiner Johnson during the telephone interview of October 31, 2006. During the course of the interview, Applicants' representative compared the interpretation of groove height and groove width as defined by the subject disclosure, in particular, Figs. 3A-3D with the alternative interpretation as asserted on p. 4 of the Office Action. Applicants' representative pointed out that an ordinary and customary meaning of height and width must be used and, furthermore, that the groove height/groove width must be interpreted as defined in the subject disclosure. The Examiner acknowledged that the groove height and the groove width are to be interpreted as defined in the subject disclosure provided that the groove height and the groove width are defined with respect to the dimensions of the solder preform.

Claims 1-7, 16 and 17 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Namely, the Office Action asserts that the subject invention has support for an upper range of 1.9:1 but does not have support for a range greater than 1.9:1. Claim 1 has been amended to include the limitations of claim 17. Claims 16 and 17 have been canceled. The examiner acknowledges that the subject disclosure provides support for an upper range of 1.9:1. Because claim 1 now recites that the range is "about 1.1:1 to about 1.9:1," applicants respectfully request that the rejection to claims 1-7, 16 and 17 under 35 U.S.C. §112, first paragraph be withdrawn.

It is asserted, on p. 4 of the Office Action, that the groove height and groove width can be alternatively interpreted, as shown by the Examiner's included drawing. Applicants respectfully disagree. Applicants note that the examiner must use the ordinary and customary meaning of height and width. See MPEP §2111.01(III) "[i]n the absence of an express intent to impart a novel meaning to the claim terms, the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art." Accordingly, a height and a width are ordinarily and customarily considered to be a vertical distance and a horizontal distance, respectively. Furthermore, applicants respectfully submit that the groove height and the groove width recited in claim 1 must be interpreted as defined in the subject disclosure. See MPEP §2111.01(IV) "[w]here an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim." The

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subject disclosure, in particular, paragraph [0030] and Figs. 3A-3D, clearly defines the groove height and the groove width. Because the subject disclosure defines the groove height and the groove width, the examiner cannot alternatively interpret the groove height and the groove width as asserted at p. 4 of the Office Action. In addition, the skilled person would not ordinarily interpret a groove height and a groove width as corresponding to a groove opening and a groove depth, respectively, as alternately interpreted on p. 4 of the Office Action. In order to advance prosecution of the above-identified application, claim 1 has been amended to define the groove height and the groove width with respect to the solder preform. Support for the amendment can be found, for example, in Figs. 3A-3D. While the examiner acknowledges that the groove height and the groove width must be interpreted as defined by the subject disclosure, the examiner also requires that the claim be amended to define "height" and "width." Applicants disagree with this requirement, but, in order to speed prosecution of the application, have amended the claim as required by the examiner.

With respect to the §102 and §103 rejections on p. 2-4 of the Office Action, applicants have responded to these rejections using applicants' definition of the groove height and the groove width, discussed above.

Claims 1 - 6 were rejected under 35 U.S.C. §102(b) as being anticipated by Boisgontier et al. (U.S. Pat. No. 4,984,866). It is respectfully submitted, however, that this ground for rejection is overcome by the amendment to claim 1. In particular, Boisgontier et al. do not disclose or suggest:

...the groove having a height dimension relative to the height of the body and width dimension relative to the width of the body, wherein a ratio of said height dimension to said width dimension is about 1.1:1 to about 1.9:1 ...

as required by claim 1.

Boisgontier et al. disclose, in Fig. 8, a preformed bridge of solder placed on optical fiber 43 over a keying area 64 (Col. 12, lines 16 - 21). Fig. 8 of Boisgontier et al. shows a space provided between optical fiber 43 and preformed bridge of solder 70. Boisgontier et al. do not disclose or suggest that the ratio of a height dimension to a width dimension of the groove is about 1.1:1 to about 1.9:1, as required by claim 1. In Fig. 8, Boisgontier et al., instead, clearly shows that a height of the groove of the preformed bridge strip of solder 70 is less than its width. The examiner, on p. 4 of the Office Action, acknowledges that Boisgontier et al. teach a

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height less than a width. Accordingly, Boisgontier et al. can not disclose or suggest that a height of the groove is greater than its width. The subject invention represents an advantage over the preformed bridge of solder described in Boisgontier et al. because, in Applicants' invention, the height of the groove is greater than its width, allowing greater alignment in the vertical direction. Because the alignment of optical fiber to an emitting device such as a laser or LED in the vertical direction is typically more critical than its alignment in the horizontal direction, the subject invention allows greater flexibility in aligning the optical fiber in the vertical direction. Thus, Boisgontier et al. do not disclose or suggest all of the features of claim 1.

Because Boisgontier et al. do not disclose or suggest all of the features of claim 1, claim 1 is not subject to rejection under 35 U.S.C. §102(b) as being anticipated by Boisgontier et al. and claims 2-6 which depend from claim 1 are also not subject to rejection under 35 U.S.C. §102(b) as being anticipated by Boisgontier et al.

Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over Boisgontier et al. and further in view of Enochs (U.S. Pat. No. 4,702,547). Claim 7, however, includes all of the features of claim 1 from which it depends and is patentable over Boisgontier et al. for at least the same reasons as claim 1.

Enochs does not supply the deficiencies of Boisgontier et al. because it does not disclose or suggest "the groove having a height dimension ... and width dimension ... wherein a ratio of said height dimension to said width dimension is about 1.1:1 to about 1.9:1" as required by claim 1.

Enochs discloses that an optical fiber is positioned within a groove of a silicon retaining member and that "for an optical fiber which is about 125 microns in diameter, it is preferred that the groove be approximately 125 microns wide and 125 microns deep" (Col. 3, lines 56-59). Thus, Enochs does not disclose or suggest that the groove has a ratio of a height dimension to a width dimension of 1.1:1 to about 1.9:1. Enochs is silent on providing a height of the groove that is greater than its width. Furthermore, silicon is not a glass but a semi-metal. The use of silicon is described in Enochs as "forming a silicon-gold alloy" (Abstract) indicates that the metallic properties of silicon are being relied upon. Thus, Enochs does not disclose or suggest the use of a glass preform, as required by claim 7.

The cited art taken singularly or in combination do not disclose or suggest the features of claim 1. Accordingly, claim 7, which includes all of the features of claim 1 from which it

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depends is also not subject to rejection under 35 U.S.C. §103(a) as being unpatentable over Boisgontier et al. and further in view of Enochs.

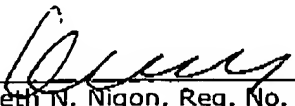
Applicants acknowledge with appreciation the Examiner's finding that claim 8 includes allowable subject matter and would be allowable if rewritten in independent form including all limitations of the base claim and the intervening claims. Applicants have not amended claim 8 into independent form because it is submitted that the base claim is allowable for the reasons set forth above.

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In view of the foregoing amendments and remarks, Applicants request the Examiner to reconsider and withdraw the rejection of claims 1-7, 16 and 17 and the objection of claim 8.

Respectfully submitted,


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KNN/pb

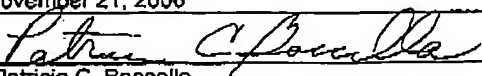
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November 21, 2006


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